


How to get started drawing application threat model diagrams

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Question

How do I get started drawing an application threat model diagram using Microsoft Threat Modeling Tool?

Answer

While the VA Software Assurance Program Office will normally draw initial application threat model diagrams for VA application developers since initial diagrams generally cannot be created in an automated fashion, there may be circumstances where it is desired to create one's own diagrams. Or, to understand how a diagram may have been made.

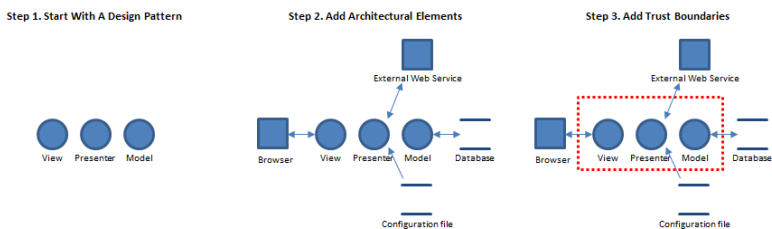
One potential way to get from for example lists of technologies to a Microsoft Threat Modeling Tool diagram is to find notional diagrams depicting common uses of those technologies, that can perhaps then be tailored to reflect your application's design. This approach can be helpful in overcoming artist's block caused by starting from a blank page.

Examples of types of notional diagrams that are generally helpful from a threat model diagram perspective include:

- Application architecture diagrams (e.g. mobile app, web application, etc.)
- Design patterns implemented (e.g. Model-View-Controller, Model-View-Presenter, etc.)

For example, if the application in question is a C# application, asking which of the [these](#) architectures most closely resembles it, and perhaps also asking which of [these](#) design patterns the application implements. A Model-View-Presenter (MVP) design pattern implemented in C# for example can be depicted as three generic process elements.

Application-specific architectural elements can then be added to the diagram along with interactions between for example databases and the model element, etc. Adding trust boundaries and tailoring the diagram can then continue iteratively in that fashion. An example of this process is depicted in the figure below.



This approach, coupled with investigating clues such as off-hand mention of security features or application components mentioned in available documentation, can then be the starting point for corresponding Microsoft Threat Modeling Tool diagram elements.

Additional examples of notional diagrams that may be helpful to readers of this technical note can be found [HERE](#)

References

- [VA Secure Design Review SOP](#)

Microsoft Threat Modeling Tool Version	2016 and later
Threat Modeling Tool Design View Topic	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Threat Modeling Tool Analysis View Topic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Supporting Analysis Documentation Topic	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Other Related Topic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Request initial threat models, design review validations, and support [HERE](#).